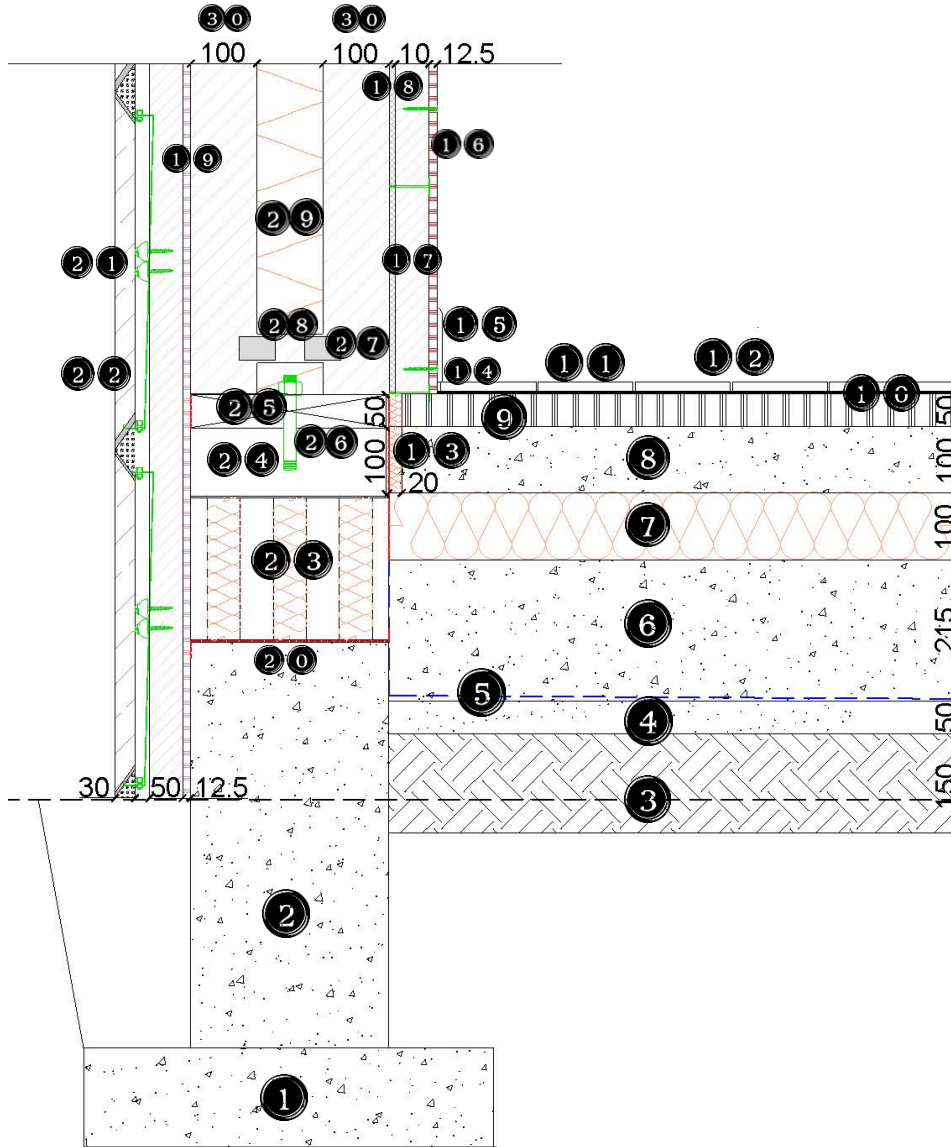


Typical Detail – Passive Twin Stud Wall to Loadbearing Screed Floor



NOTES:

- Strip foundation concrete trench 620mm wide and 150mm deep. Concrete mix - RIGAcrete Watertight, water resistant concrete, minimum cement content 220 kg/m³, strength C40/50, to BS 8500-2. Manufacturer: Leiths (Scotland) Ltd
- Reinforced concrete substructure wall up to 150 mm above ground level 300mm thick, Concrete mix - RIGAcrete Watertight, water resistant concrete, minimum cement content 220 kg/m³, strength C40/50, to BS 8500-2. Manufacturer: Leiths (Scotland) Ltd
- 150 mm thick layer of consolidated hardcore: MOT TYPE 1 SUB BASE LARGE BULK BAG, Type/Standard: MOT TYPE 1 SUB BASE, to BS EN 13242, Product Code: AGSTB020, Unit sizes: Bulk bags, Durability: Sub base aggregate. Manufacturer: Jewson Limited
- 50 mm compacted sand binding: BUILDING SAND LARGE BULK BAG, Type/Standard: BUILDING SAND, to BS EN 13139:2002, Product Code: AGSTB001, Unit sizes: Bulk bags, Durability: Sharp sand. Manufacturer: Jewson Limited
- DPM overlapped 150 mm upward: Type/Standard: Hyload Universal DPM (500 µm), to BS EN 13967:2012+A1:2017, Product code: 30833510. Colour and finish: blue, Unit sizes: Sheet width: 4 m, Roll length: 12.5 m, Roll weight: 23 kg. Durability: 2000 gauge. Related: Hyload DPM Jointing Tape, Product code: 30833520. Manufacturer: IKO PLC.
- 215 mm thick concrete floor slab: Concrete mix - RIGAcrete High Flow, strength C16/20, to BS 8500-2. Manufacturer: Leiths (Scotland) Ltd
- 100 mm thick extruded polystyrene: Extruded polystyrene rigid boards of pre-extruded polystyrene beds, to Approved Documents L1A, L2A, L1B, L2B (England and Wales) and Section 6 - Energy (Scotland). Type/Standard: HEXATERM Yelofoam x2i extruded polystyrene, product code: ICX2100, (available from JEWSON Limited), U-value (W/m²K) - 0.034, Colour and finish: Square edge detail, Unit sizes: 2500 x 600 x 100mm, Durability: High compressive strength - 300 kPa to BS EN 826 and BS EN 1606, High water resistance. Manufacturer: Cellecta Ltd
- 100 mm thick concrete floor slab: Concrete mix - RIGAcrete High Flow, strength C16/20, to BS 8500-2. Manufacturer: Leiths (Scotland) Ltd
- Anhydrite fluid screed layer 50mm: Gypsol XS High Strength Anhydrite Screed, Appearance: Off white fluid mortar. Density: Wet - 2200 kg/m³, dry - 2000 kg/m³. Minimum strength (28 days): CA-C30-F7. Required flow (to BS EN 13454-2): 230-270 mm, Drying time (to <75% relative humidity (RH) at 50 mm depth): Natural drying 28 days; forced drying 13 days. Can take foot traffic 24-48 hours and loading 5-7 days (based on good drying conditions of 60% RH at 20°C). Fire rating: Class Afl. Manufacturer: GYP SOL - UKAB
- Acoustic foam layer under timber boards 5mm: Earthwool® Acoustic Floor Slab 5mm resilient layer over floor screed. Dense, compression resistant, non-combustible, rock mineral wool slab made with a formaldehyde-free binder derived from rapidly renewable materials classified as Zero ODP and Zero GWP. Slab length: 900 mm, Slab width: 600 mm, Fire performance: Euroclass A1 to BS EN ISO 13501-1. Environmental: 'A' generic BRE Green Guide rating. The resilient layer turned up at the edges of the floor to isolate the walls from the screed. Manufacturer: Knauf Insulation Ltd
- Timber floorboard, Size (l x w): 190 x 1830 mm. Thickness: 15 mm. Material: Oak 11 mm thick multi-layer ply backing with 4 mm thick solid cut veneer top layer. Finish: Hard wax oil matt. Edges: Tongue and grooved and micro bevelled on all four sides. Grade: CDE. Standards: Meets all load bearing requirements of BS 6399-1 and also compliant with BS 6399-1 Table 1, Section 3 for Museum Floors and Art Galleries for exhibitions. FSC certification: FSC 300%. Manufacturer: The Solid Wood Flooring Company
- Expansion gap for timber flooring 3mm
- Acoustic foam layer overlapped from under timber boards 20mm: Earthwool® Acoustic Floor Slab 20mm resilient layer over floor screed. Dense, compression resistant, non-combustible, rock mineral wool slab made with a formaldehyde-free binder derived from rapidly renewable materials classified as Zero ODP and Zero GWP. Slab length: 900 mm, Slab width: 600mm, Fire performance: Euroclass A1 to BS EN ISO 13501-1. Environmental: 'A' generic BRE Green Guide rating. The resilient layer turned up at the edges of the floor to isolate the walls from the screed. Manufacturer: Knauf Insulation Ltd
- Timber floorboards expansion gap 5mm
- Timber skirting board 120 x 15mm thick
- Internal board: 12.5mm GTEC Megadeco with silver metallised polyester film back liner, dense plasterboard with superior fire resistance, sound insulation and impact resistance. Composition: Aerated Calcium sulphate di-hydrate with fillers and fibres enclosed inside a white pre-sealed paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA. Complies with BS EN 520:2004+A1:2009 Type D, F, I & R. Longitudinal breaking load ≥ 650N, Transverse breaking load ≥ 250N, Reaction to fire: Euroclass A2-s1, d0, Moisture Content: < 2%, Mean Water vapour resistance factor: μ = 10 according to BS EN 12524 standard, Nail & screw pull through: > 700 N, Thermal Conductivity, AR: 0.25 W/mK product sizes: Tapered Edge, 12.5 mm thick, 2400 mm x 1200 mm, 38 kg. Finished with slim coat 3 mm thick, smoothed. Joining and finish: GTEC Deco jointing systems: GTEC Fire rated silicone sealant, GTEC easyfinish extra, GTEC deco filler, GTEC edging bead, GTEC patching tape, GTEC joint tape, Fitting: GTEC drywall screw self drilling, GTEC Drywall Screw Self Tapping Screw and GTEC performance self tapping - Fine threaded screw, Phillips head, Carbon steel screws with Zinc Coating, Manufactured to BS EN 14566. Manufacturer: Etex Building Performance Siniat
- Service void batten 50x50mm - Scots pine battens, Type/Standard: BS 4978:2007+A2:2017, grade C16 specified in BS EN 1995-1-1:2004+A2:2014, Unit sizes: 50x50mm, Manufacturer: Stewart Milne Group
- Sheathing boards, Type/Standard: softwood grade to BS5268-2:2000 and to CP112 part 2, Unit sizes: 600x1200x9.5mm thick, Durability: OSB softwood C16. Manufacturer: Stewart Milne Group
- External Weather Defence sheathing boards, fully non-combustible Euroclass A1 rated sheathing boards and confirmed by BRE as a suitable alternative to cement particle board in external systems, tested or assessed against BS8414-2 or BR 135, lightweight board which can easily create corners or striking curves (sheathing boards) 11 x 12.5mm. Weather Defence Air permeability: to European standard EN 12114 0.002 m³/m²/hr - a negligible flow of air, Humid movement: to EN318 maximum expansion of 0.11mm per m (0.01%), from 65% to 85% relative humidity. Sizes: Width: 1200mm, Length: 2400mm, Boards per pallet: 52, Board weight: 30.8kg/m². Fixings and sealants: F590/W Flat Plate to studs corresponding with all horizontal board joints. Weather Defence board lied horizontally across studs in a 'brick bond' pattern, Siniat GTEC Wet Area Self Drilling screws at maximum 300mm centres, Fire Rated Silicone Sealant or Weather Defence Joint Tape. Manufacturer: Etex Building Performance Siniat
- Flexible DPCs. Type/Standard: Gas Resistant DPC overlapped to meet DPM. Manufacturer: Cordek Ltd
- Invisible Fix System: Capped cladding fixing for clips to vertical battens, 35mm, Steel panels clip fixing 500mm turned by panel diagonal. Additional bolting fixing for panels and clips on mullion extent. Secret-fix solution with steel clips screwed directly to vertical battens. Mechanical Secret fix: aluminium framing system consisting of hangers fixed to the rear of the board (clips, Balls and Screws). Manufacturer: VIVALDA
- Curtain wall cladding panels 500x500mm diamond shape with alloy mullions I shaped with extension for clip fixing. Air dried jointed Scottish oak cladding. Compliant with BS EN 14915 and BS 8605-1 500x500mm panels 30mm thick, stained with Ronseal single coat for rough sawn wood, three colours: Dark Oak, Charcoal Oak, Stone, waterbased, neutral for environment. Technical properties: Moisture content: 16-20%. Natural durability (to BS EN 350-2): Durable, Class 2. Insect attack: Sap excluded from front face. Service life (to BS 8417): Occasionally wet: 60 years; frequently wet: 30 years. Treatability class: Resistant. Movement class: Medium. Resistance to Medium to High. Resistance to fixing: High, pre-drilling recommended. When to fix: Ideally autumn/ winter only. Grading: BS 1186-3: Class 3; BS EN 942: J30; CE. Grade A. Alloy profiled mullions T angled D5F81 2.5 x 2.5mm flange, 30mm web, gauge 1.2. 500x500 glass panels: Technical features: Triple glazed, 3 panel configuration, triple track option. 30mm deep outerframe, multipoint locking system, stainless steel one piece keep, wrap around glazing system, provides added security and slim sight-lines. Slim-line aluminium profiles with meeting styles of 30mm. Manufacturer: Stewart Milne Group
- Cellular Dense Concrete Blocks 7.3N 215mm. Height: 215 mm, Length: 300 mm, Width: 100 mm. Colour: Grey. Compressive Strength 7.30 N per mm², Fire Rating: Class A0, BBA Approved. Type: Lightweight Block - high quality class 2 aggregates. To BS EN 771-3. Thermal conductivity: 0.88 W/mK Manufacturer: Thomas Armstrong (Concrete Blocks) Ltd. Insulation: Earthwool® Multi-purpose, non-combustible, glass mineral wool roll for installation by friction fitting. Flexible and robust made with a formaldehyde-free binder derived from rapidly renewable materials classified as Zero ODP and Zero GWP. Thermal conductivity (K-value): 0.034 W/mK. Roll width: 1200mm, Fire performance: Euroclass A1 to BS EN ISO 13501-1. Manufacturer: Knauf Insulation Ltd
- Airtec aerated concrete brick supporting internal and external wall leaf's 300x100mm thick. Light dense concrete blocks Airtec Large, Gross Dry density 600 (+50) kg/m³, Compressive strength 3.6 N/mm², Fire resistance 4 hours, Available size: 620x430x100mm, to cut on site. Thermal conductivity (K-value): 0.17 W/mK. Manufacturer: Thomas Armstrong (Holdings) Ltd
- Sole plate 50x300mm thick - Scots pine wall plate and panel framing board. Type/Standard: BS 4978:2007+A2:2017, grade C16 specified in BS EN 1995-1-1:2004+A2:2014, Unit sizes: 300 mm x 50 mm, Manufacturer: Stewart Milne Group. Included: Vertical restraint straps, Type/Standard: Medium Twist Strap, to BS EN 845-1, Unit sizes: Ref. MT1512, dimensions 32x305x1.5mm, holes 14 Ø4 - 2 Ø10, fasteners x 12 - 3.75 x 30, load capacity 4.02 kN. Durability: Pre-galvanized mild steel. Framing anchors, Type/Standard: Framing Anchor/Universal Framing Anchor, to BS EN 845-1, Unit sizes: Ref. A34, Dimensions and drill holes [mm] 36x63x36, Number of Fasteners x 8, 3.75 x 30mm, downloads 1.30 kN, Durability: Pre-galvanized mild steel. Manufacturer: SIMPSON STRONG-TIE
- Framing bolt: Type/Standard: Framing bolt/Universal Framing bolt, to BS EN 845-1, Unit sizes: Ref. A34, Dimensions and drill holes [mm] 22, downloads 1.30 kN, Durability: Pre-galvanized mild steel. Manufacturer: SIMPSON STRONG-TIE
- Plate connectors, Type/Standard: Nail plates, to BS EN 845-1. Unit sizes: Ref. NP100/300, Dimensions and drill holes [mm] 35 x 50x1.5, 5 holes, diameter Ø4.1, Durability: Pre-galvanized mild steel. Manufacturer: SIMPSON STRONG-TIE
- Collars/Ties, Scots pine stud ties, Type/Standard: BS 4978:2007+A2:2017, grade C16 specified in BS EN 1995-1-1:2004+A2:2014, Unit sizes: 100 mm x 44 mm, Manufacturer: Stewart Milne Group
- 300 mm WARMCEL Cellulose Fibre Insulation - Low-dust cellulose with a small percentage of oil or similar dust dampener added. Thermal Conductivity Lambda 90/90 23°C/0.6RH 0.038 W/mK to EN 12667 EN ISO 10456 EAD 040138-00-1201. Reaction to Fire Class E. Specific Airflow Resistance for bulk density 60.0 kg/m³ ≥18 kPa/m², Critical Moisture Content 75%, Density min 65 (kg/m³), Specific heat capacity 2020 ± 6% J/kg.K, vapor permeable. Manufacturer: PVC Insulation
- Vertical twin studs 50x100mm thick - Scots pine twin studs, Type/Standard: BS 4978:2007+A2:2017, grade C16 specified in BS EN 1995-1-1:2004+A2:2014, Unit sizes: 100 mm x 50 mm, Manufacturer: Stewart Milne Group. Included: Fasteners - Type/Standard: Electro-galvanized annular ring-shank nails, Timber Fasteners, Electro galvanized with Yellow Chromate and anti-friction coating structural screws, Square Twist Nails, Unit sizes: 3.35mm (10 gauge) x 65mm long galvanized round wire nails, 4.5mm x 100mm long galvanized round wire nails, 3.75mm x 30mm Square Twist Nails, Structural screws 150 mm long. Durability: galvanized, coated. Manufacturer: SIMPSON STRONG-TIE